



August 18, 2021

Andy Warnick
Rosemont Copper Company
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Work Order No.: 21G0719
Order Name: Baseline Stormwater
Monitoring

RE: Baseline Stormwater Monitoring

Dear Andy Warnick,

Turner Laboratories, Inc. received 8 sample(s) on 07/28/2021 for the analyses presented in the following report.

All results are intended to be considered in their entirety, and Turner Laboratories, Inc. is not responsible for use of less than the complete report. Results apply only to the samples analyzed. Samples will be disposed of 30 days after issue of our report unless special arrangements are made.

The pages that follow may contain sensitive, privileged or confidential information intended solely for the addressee named above. If you receive this message and are not the agent or employee of the addressee, this communication has been sent in error. Please do not disseminate or copy any of the attached and notify the sender immediately by telephone. Please also return the attached sheet(s) to the sender by mail.

Please call if you have any questions.

Respectfully submitted,

Turner Laboratories, Inc.
ADHS License AZ0066

Elizabeth Kasik
Laboratory Director

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

Order: Baseline Stormwater Monitoring

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Matrix	Collection Date/Time
21G0719-01	D2-072221	Storm Water	07/22/2021 2344
21G0719-02	D1-3-072221	Storm Water	07/22/2021 2344
21G0719-03	D1-2-072321	Storm Water	07/23/2021 2315
21G0719-04	D1-1-072221	Storm Water	07/22/2021 2344
21G0719-05	D1-4-072221	Storm Water	07/22/2021 2344
21G0719-06	D1-5-72221	Storm Water	07/22/2021 2344
21G0719-07	D32-072221	Storm Water	07/22/2021 2344
21G0719-08	D46-072221	Storm Water	07/22/2021 2344

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

Case Narrative

N1 = The Laboratory Control Sample / Laboratory Control Sample Duplicate recovered low and outside of acceptance limits in the initial analysis of the sample for Orthophosphate. The samples were re-analyzed with acceptable quality control for confirmation.

- D5 Minimum Reporting Limit (MRL) is adjusted due to sample dilution; analyte was non-detect in the sample.
- E4 Concentration estimated. Analyte was detected below laboratory Minimum Reporting Limit (MRL) but above MDL.
- E8 Analyte reported to MDL per project specification. Target analyte was not detected in the sample.
- H1 Sample analysis was performed past holding time.
- H3 Sample was received and/or analysis requested past holding time.
- H5 This test is specified to be performed in the field within 15 minutes of sampling; sample was received and analyzed past the regulatory holding time.
- L2 The associated LCS/LCSD recovery was below laboratory acceptance limits.
- M1 Matrix spike recovery was high; the associated LCS/LCSD was acceptable.
- M3 The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated LCS/LCSD recovery was acceptable.
- M4 The analysis of the spiked sample required a dilution such that the calculation does not provide useful information. The associated LCS/LCSD recovery was acceptable.
- M7 Matrix spike recovery was low. Data reported per ADEQ policy 0154.000. Matrix interference was confirmed.
- N1 See case narrative.
- N4 The Minimum Reporting Limit (MRL) verification check did not meet laboratory acceptance limits.
- Q9 Insufficient sample received to meet method QC requirements.

All soil, sludge, and solid matrix determinations are reported on a wet weight basis unless otherwise noted.

- ND Not Detected at or above the PQL
- PQL Practical Quantitation Limit
- DF Dilution Factor

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-01

Client Sample ID: D2-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	120		22		mg/L	1	08/02/2021 1845	08/10/2021 1339	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	370				mg/L	1	08/06/2021 1035	08/10/2021 1224	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	34				mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1711	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.033	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
Calcium	38		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1339	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
Magnesium	5.1		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
Potassium	9.3		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
Silica	11		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1355	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	0.073		0.040		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Antimony	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Arsenic	0.0059		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Barium	0.071		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Cobalt	0.0046		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Copper	0.0075		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Manganese	1.1		0.025		mg/L	100	08/02/2021 1845	08/05/2021 1629	CR
Molybdenum	0.012		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-01

Client Sample ID: D2-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Nickel	0.00089		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Selenium	0.00030		0.0025		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Silver	0.00020	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Thallium	0.000035		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/03/2021 1335	CR

CVAA Dissolved Mercury-E 245.1

Mercury	0.0000660	0.0000082	0.0020	E4	mg/L	1	08/10/2021 1023	08/10/2021 1416	MH
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pH-E150.1

pH (pH Units)	6.8			H5	-	1	08/02/2021 1350	08/02/2021 1419	CWB
Temperature (°C)	19			H5	-	1	08/02/2021 1350	08/02/2021 1419	CWB

Turbidity-E180.1

Turbidity	12		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
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ICP Total Metals-E200.7 (4.4)

Boron	0.23		0.10		mg/L	1	08/06/2021 1035	08/10/2021 1225	MH
Calcium	100		4.0		mg/L	1	08/06/2021 1035	08/10/2021 1224	MH
Iron	68		0.30		mg/L	1	08/06/2021 1035	08/10/2021 1224	MH
Magnesium	29		3.0		mg/L	1	08/06/2021 1035	08/10/2021 1224	MH
Potassium	31		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1224	MH
Silica	140		2.0		mg/L	10	08/06/2021 1035	08/10/2021 1647	MH
Sodium	ND		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1732	MH

ICP/MS Total Metals-E200.8 (5.4)

Aluminum	58		4.0		mg/L	100	08/06/2021 1115	08/10/2021 1455	MH
Antimony	ND		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Arsenic	0.020		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Barium	0.63		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Beryllium	0.0066		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Cadmium	0.0016		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Chromium	0.028		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Cobalt	0.0481		0.000250		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Copper	0.50		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Lead	0.081		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Manganese	3.4		0.025		mg/L	100	08/06/2021 1115	08/10/2021 1455	MH

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Client Sample ID: D2-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Molybdenum	0.0074		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Nickel	0.030		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Selenium	0.11		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Silver	0.00065		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Thallium	0.0017		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Uranium	0.0051		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH
Zinc	0.36		0.040		mg/L	1	08/06/2021 1115	08/10/2021 1358	MH

CVAA Total Mercury-E245.1

Mercury	ND	0.0018	0.0050	E8	mg/L	1	08/09/2021 0714	08/09/2021 1242	MH
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Anions by Ion Chromatography-E300.0 (2.1)

Chloride	1.3		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1711	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1711	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1711	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1711	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1715	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1711	JG

Calculation-Ion Balance

Anion	2.90				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	2.60				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	5.41				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB

Total Kjeldahl Nitrogen-PAI-DK01

Nitrogen, Total Kjeldahl	34		5.0		mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
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Alkalinity-SM2320B

Alkalinity, Bicarbonate (As CaCO3)	130		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	130		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ

Specific Conductance-SM2510 B

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-01

Client Sample ID: D2-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Conductivity	240		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	280		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	2300		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Silica-SM4500-SiO2 C									
Silica	10		10		mg/L	5	08/10/2021 1530	08/10/2021 1730	AGC

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-02

Client Sample ID: D1-3-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	76		22		mg/L	1	08/02/2021 1845	08/10/2021 1403	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	290				mg/L	1	08/06/2021 1035	08/10/2021 1228	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	22				mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.030	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
Calcium	23		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1403	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
Magnesium	4.7		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
Potassium	7.1		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
Silica	10		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1358	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Antimony	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Arsenic	0.0053		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Barium	0.052		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Cobalt	0.0024		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Copper	0.0090		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Manganese	0.82		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1636	CR
Molybdenum	0.010		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Nickel	0.0018		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
Selenium	ND	0.00025	0.0025	E8	mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Silver	0.00019	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1356	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-02

Client Sample ID: D1-3-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	0.0000260.000023		0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1356	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1216	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.0000780.0000082		0.0020	E4	mg/L	1	08/10/2021 1023	08/10/2021 1418	MH
pH-E150.1									
pH (pH Units)	6.8			H5	-	1	08/02/2021 1350	08/02/2021 1420	CWB
Temperature (°C)	19			H5	-	1	08/02/2021 1350	08/02/2021 1420	CWB
Turbidity-E180.1									
Turbidity	23		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.15		0.10		mg/L	1	08/06/2021 1035	08/10/2021 1229	MH
Calcium	92		4.0		mg/L	1	08/06/2021 1035	08/10/2021 1228	MH
Iron	16		0.30		mg/L	1	08/06/2021 1035	08/10/2021 1228	MH
Magnesium	14		3.0		mg/L	1	08/06/2021 1035	08/10/2021 1228	MH
Potassium	13		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1228	MH
Silica	68		0.20		mg/L	1	08/06/2021 1035	08/10/2021 1229	MH
Sodium	ND		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1736	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	14		4.0		mg/L	100	08/06/2021 1115	08/10/2021 1526	MH
Antimony	ND		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Arsenic	0.012		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Barium	0.34		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Beryllium	0.0020		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Cadmium	0.0012		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Chromium	0.0077		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Cobalt	0.0146		0.000250		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Copper	0.37		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Lead	0.022		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Manganese	2.7		0.025		mg/L	100	08/06/2021 1115	08/10/2021 1526	MH
Molybdenum	0.011		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Nickel	0.015		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Selenium	0.045		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-02

Client Sample ID: D1-3-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.00098		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Thallium	0.00029		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Uranium	0.0039		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
Zinc	0.19		0.040		mg/L	1	08/06/2021 1115	08/10/2021 1402	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.00036	0.0010	E8	mg/L	1	08/09/2021 0714	08/09/2021 1244	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	2.7		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1733	JG
Sulfate	5.6		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1729	JG
Calculation-Ion Balance									
Anion	2.43				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	1.75				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	16.3				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	22		5.0		mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	96		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	96		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	190		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-02

Client Sample ID: D1-3-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	280		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	6500		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	1.5		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Silica-SM4500-SiO2 C									
Silica	12		10		mg/L	5	08/10/2021 1530	08/10/2021 1730	AGC

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-03

Client Sample ID: D1-2-072321
Collection Date/Time: 07/23/2021 2315
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	92		22		mg/L	1	08/02/2021 1845	08/10/2021 1407	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	5100				mg/L	1	08/06/2021 1035	08/10/2021 1232	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	13				mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.024	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
Calcium	31		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1407	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
Magnesium	3.6		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
Potassium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
Silica	8.1		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1401	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Antimony	0.00069		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Arsenic	0.0031		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Barium	0.032		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Cobalt	0.00099		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Copper	0.047		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Manganese	0.48		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1640	CR
Molybdenum	0.042		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Nickel	0.00087		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR
Selenium	0.00070	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1400	CR
Silver	0.00011	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1400	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-03

Client Sample ID: D1-2-072321
Collection Date/Time: 07/23/2021 2315
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst	
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1400	CR	
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1219	CR	
CVAA Dissolved Mercury-E 245.1										
Mercury	0.00011	0.0000082	0.0020	E4	mg/L	1	08/10/2021 1023	08/10/2021 1421	MH	
pH-E150.1										
pH (pH Units)	7.3			H5	-	1	08/02/2021 1350	08/02/2021 1422	CWB	
Temperature (°C)	21			H5	-	1	08/02/2021 1350	08/02/2021 1422	CWB	
Turbidity-E180.1										
Turbidity	21		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB	
ICP Total Metals-E200.7 (4.4)										
Boron	1.9		0.50		mg/L	1	08/06/2021 1035	08/10/2021 1233	MH	
Calcium	1400		20		mg/L	1	08/06/2021 1035	08/10/2021 1232	MH	
Iron	760		15		mg/L	10	08/06/2021 1035	08/11/2021 1123	MH	
Magnesium	390		15		mg/L	1	08/06/2021 1035	08/10/2021 1232	MH	
Potassium	180		25		mg/L	1	08/06/2021 1035	08/10/2021 1232	MH	
Silica	660		10		mg/L	10	08/06/2021 1035	08/11/2021 1124	MH	
Sodium	ND		25	D5	mg/L	1	08/06/2021 1035	08/10/2021 1740	MH	
ICP/MS Total Metals-E200.8 (5.4)										
Aluminum	530		100		mg/L	500	08/06/2021 1115	08/11/2021 0836	MH	
Antimony	ND		0.0025	D5	mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Arsenic	0.12		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Barium	3.6		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Beryllium	0.053		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Cadmium	0.048		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Chromium	0.40		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Cobalt	0.250		0.00125		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Copper	47		0.25		mg/L	100	08/06/2021 1115	08/10/2021 1530	MH	
Lead	1.1		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Manganese	31		0.13		mg/L	100	08/06/2021 1115	08/10/2021 1530	MH	
Molybdenum	0.076		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Nickel	0.30		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	
Selenium	0.62		0.013		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH	

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-03

Client Sample ID: D1-2-072321
Collection Date/Time: 07/23/2021 2315
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.034		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH
Thallium	0.011		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH
Uranium	0.053		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1419	MH
Zinc	11		4.0		mg/L	20	08/06/2021 1115	08/11/2021 0922	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.0036	0.010	E8	mg/L	1	08/09/2021 0714	08/09/2021 1247	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	1.2		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1751	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1747	JG
Calculation-Ion Balance									
Anion	5.61				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	1.86				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	50.1				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	13		5.0		mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	270		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	270		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	220		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-03

Client Sample ID: D1-2-072321
Collection Date/Time: 07/23/2021 2315
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	240		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	2500		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Silica-SM4500-SiO2 C									
Silica	6.5		2.0		mg/L	1	08/10/2021 1530	08/10/2021 1730	AGC
Total Organic Carbon-SM5310 C									
Organic Carbon, Total	21		5.0		mg/L	10	08/03/2021 0758	08/03/2021 1133	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-04

Client Sample ID: D1-1-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	100		22		mg/L	1	08/02/2021 1845	08/10/2021 1822	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2500				mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	23				mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.026	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
Calcium	35		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1822	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
Magnesium	3.4		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
Potassium	5.3		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
Silica	9.5		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1405	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Antimony	0.00076		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Arsenic	0.0022		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Barium	0.051		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Cobalt	0.00056		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Copper	0.081		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Manganese	0.34		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1643	CR
Molybdenum	0.016		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Nickel	0.00060		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
Selenium	0.00057	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Silver	0.000078	0.000021	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1403	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-04

Client Sample ID: D1-1-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1403	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1223	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.0000640	0.0000082	0.0020	E4	mg/L	1	08/10/2021 1023	08/10/2021 1424	MH
pH-E150.1									
pH (pH Units)	7.5			H5	-	1	08/02/2021 1350	08/02/2021 1423	CWB
Temperature (°C)	22			H5	-	1	08/02/2021 1350	08/02/2021 1423	CWB
Turbidity-E180.1									
Turbidity	34		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.89		0.50		mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Calcium	790		20		mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Iron	300		1.5		mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Magnesium	140		15		mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Potassium	65		25		mg/L	1	08/06/2021 1035	08/10/2021 1236	MH
Silica	590		10		mg/L	10	08/06/2021 1035	08/10/2021 1655	MH
Sodium	ND		25	D5	mg/L	1	08/06/2021 1035	08/10/2021 1744	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	260		20		mg/L	100	08/06/2021 1115	08/10/2021 1533	MH
Antimony	ND		0.0025	D5	mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Arsenic	0.076		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Barium	1.7		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Beryllium	0.023		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Cadmium	0.028		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Chromium	0.20		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Cobalt	0.0911		0.00125		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Copper	28		0.25		mg/L	100	08/06/2021 1115	08/10/2021 1533	MH
Lead	0.60		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Manganese	9.9		0.13		mg/L	100	08/06/2021 1115	08/10/2021 1533	MH
Molybdenum	0.027		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Nickel	0.12		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Selenium	0.26		0.013		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-04

Client Sample ID: D1-1-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.026		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Thallium	0.0039		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Uranium	0.022		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1423	MH
Zinc	7.3		2.0		mg/L	10	08/06/2021 1115	08/11/2021 0926	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.0036	0.010	E8	mg/L	1	08/09/2021 0714	08/09/2021 1249	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	1.1		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1809	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1805	JG
Calculation-Ion Balance									
Anion	4.82				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	2.18				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	37.8				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	23		5.0		mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	230		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	230		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	190		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-04

Client Sample ID: D1-1-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	170		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	15000		10		mg/L	1	07/29/2021 0810	07/30/2021 1149	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	0.90		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Silica-SM4500-SiO2 C									
Silica	7.3		2.0		mg/L	1	08/10/2021 1530	08/10/2021 1730	AGC
Total Organic Carbon-SM5310 C									
Organic Carbon, Total	17		5.0		mg/L	10	08/03/2021 0758	08/03/2021 1153	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-05

Client Sample ID: D1-4-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	150		22		mg/L	1	08/02/2021 1845	08/10/2021 1826	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	1500				mg/L	1	08/06/2021 1035	08/10/2021 1240	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	20				mg/L	10	08/04/2021 1600	08/05/2021 1300	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	0.61		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.048	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
Calcium	54		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1826	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
Magnesium	4.6		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
Potassium	7.6		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
Silica	12		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1408	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1226	CR
Antimony	0.00083		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Arsenic	0.0035		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Barium	0.035		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1226	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
Cobalt	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
Copper	0.091		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
Lead	0.0013		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Manganese	0.050		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
Molybdenum	0.047		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Nickel	0.0011		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
Selenium	0.00057	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Silver	0.000062	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1407	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-05

Client Sample ID: D1-4-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1407	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1647	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.000055	0.000082	0.0020	E4	mg/L	1	08/10/2021 1023	08/10/2021 1426	MH
pH-E150.1									
pH (pH Units)	6.8			H5	-	1	08/02/2021 1630	08/02/2021 1635	CWB
Temperature (°C)	24			H5	-	1	08/02/2021 1630	08/02/2021 1635	CWB
Turbidity-E180.1									
Turbidity	14		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.29		0.10		mg/L	1	08/06/2021 1035	08/10/2021 1240	MH
Calcium	530		4.0		mg/L	1	08/06/2021 1035	08/10/2021 1240	MH
Iron	110		3.0		mg/L	10	08/06/2021 1035	08/10/2021 1659	MH
Magnesium	55		3.0		mg/L	1	08/06/2021 1035	08/10/2021 1240	MH
Potassium	29		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1240	MH
Silica	110		2.0		mg/L	10	08/06/2021 1035	08/10/2021 1659	MH
Sodium	ND		5.0		mg/L	1	08/06/2021 1035	08/10/2021 1748	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	63		4.0		mg/L	100	08/06/2021 1115	08/10/2021 1537	MH
Antimony	ND		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Arsenic	0.022		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Barium	0.52		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Beryllium	0.0062		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Cadmium	0.0070		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Chromium	0.052		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1001	MH
Cobalt	0.0403		0.00125		mg/L	5	08/06/2021 1115	08/11/2021 1001	MH
Copper	7.0		0.050		mg/L	100	08/06/2021 1115	08/10/2021 1537	MH
Lead	0.19		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Manganese	5.2		0.025		mg/L	100	08/06/2021 1115	08/10/2021 1537	MH
Molybdenum	0.030		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Nickel	0.067		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1001	MH
Selenium	0.070		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-05

Client Sample ID: D1-4-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.0053		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Thallium	0.0016		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Uranium	0.0092		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1426	MH
Zinc	1.5		0.20		mg/L	5	08/06/2021 1115	08/11/2021 1001	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.0018	0.0050	E8	mg/L	1	08/09/2021 0714	08/09/2021 1252	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	1.3		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
Nitrogen, Nitrate (As N)	0.51		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
Nitrogen, Nitrite (As N)	0.10		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1827	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1823	JG
Calculation-Ion Balance									
Anion	24.3				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	3.27				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	76.3				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	19		5.0		mg/L	10	08/04/2021 1600	08/05/2021 1300	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	1200		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	1200		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	280		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-05

Client Sample ID: D1-4-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	240		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	7200		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	0.67		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Silica-SM4500-SiO2 C									
Silica	9.2		2.0		mg/L	1	08/10/2021 1530	08/10/2021 1730	AGC

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-06

Client Sample ID: D1-5-72221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	120		22		mg/L	1	08/02/2021 1845	08/10/2021 1830	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	3400				mg/L	10	08/08/2021 1145	08/11/2021 1232	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	11				mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.030	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
Calcium	41		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1830	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
Magnesium	3.2		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
Potassium	5.9		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
Silica	9.8		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1411	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1230	CR
Antimony	0.00083		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Arsenic	0.0031		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Barium	0.037		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1230	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
Cobalt	0.00033		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
Copper	0.076		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Manganese	0.16		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
Molybdenum	0.047		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Nickel	0.00079		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
Selenium	0.00047	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Silver	0.000070	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1410	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-06

Client Sample ID: D1-5-72221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1410	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1650	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.000043	0.0000041	0.0010	E4	mg/L	1	08/10/2021 1023	08/10/2021 1429	MH
pH-E150.1									
pH (pH Units)	6.9			H5	-	1	08/02/2021 1630	08/02/2021 1636	CWB
Temperature (°C)	23			H5	-	1	08/02/2021 1630	08/02/2021 1636	CWB
Turbidity-E180.1									
Turbidity	18		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.21		0.10		mg/L	1	08/08/2021 1145	08/11/2021 1156	MH
Calcium	1200		40		mg/L	10	08/08/2021 1145	08/11/2021 1232	MH
Iron	160		3.0		mg/L	10	08/08/2021 1145	08/11/2021 1232	MH
Magnesium	100		3.0		mg/L	1	08/08/2021 1145	08/11/2021 1155	MH
Potassium	49		5.0		mg/L	1	08/08/2021 1145	08/11/2021 1155	MH
Silica	130		2.0		mg/L	10	08/08/2021 1145	08/11/2021 1233	MH
Sodium	ND		5.0		mg/L	1	08/08/2021 1145	08/11/2021 1156	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	100		8.0		mg/L	200	08/06/2021 1115	08/11/2021 0905	MH
Antimony	ND		0.0025	D5	mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Arsenic	0.028		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Barium	0.90		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Beryllium	0.010		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1430	MH
Cadmium	0.014		0.0013		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Chromium	0.081		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Cobalt	0.0717		0.00125		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Copper	13		0.050		mg/L	100	08/06/2021 1115	08/11/2021 0840	MH
Lead	0.38		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Manganese	9.9		0.025		mg/L	100	08/06/2021 1115	08/11/2021 0840	MH
Molybdenum	0.023		0.0013		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Nickel	0.073		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Selenium	0.17		0.013		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-06

Client Sample ID: D1-5-72221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.011		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Thallium	0.0023	0.00012	0.0025	E4	mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
Uranium	0.015		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1430	MH
Zinc	2.7		0.20		mg/L	5	08/06/2021 1115	08/11/2021 1004	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.0018	0.0050	E8	mg/L	1	08/09/2021 0714	08/09/2021 1254	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	1.8		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 1958	JG
Sulfate	7.9		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1841	JG
Calculation-Ion Balance									
Anion	9.87				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	2.47				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	60.0				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	11		5.0		mg/L	10	07/29/2021 1630	08/03/2021 1340	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	470		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	470		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	360		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-06

Client Sample ID: D1-5-72221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	300		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	28000		10		mg/L	1	07/29/2021 0810	07/30/2021 1149	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	08/04/2021 1030	08/04/2021 1633	JG
Total Organic Carbon-SM5310 C									
Organic Carbon, Total	20		5.0		mg/L	10	08/03/2021 0758	08/03/2021 1214	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-07

Client Sample ID: D32-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	76		22		mg/L	1	08/02/2021 1845	08/10/2021 1834	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	3400				mg/L	10	08/08/2021 1145	08/11/2021 1236	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	1.9				mg/L	1	08/04/2021 1600	08/05/2021 1300	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	ND		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.022	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
Calcium	31		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1834	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
Magnesium	ND		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
Potassium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
Silica	3.6		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1414	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1233	CR
Antimony	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Arsenic	0.0023		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Barium	0.029		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1233	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
Cobalt	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
Copper	0.019		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Manganese	0.041		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
Molybdenum	0.0093		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Nickel	0.0019		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
Selenium	0.00050	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Silver	0.000042	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1414	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-07

Client Sample ID: D32-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	0.0000270.000023		0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1414	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1654	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.0000260.0000041		0.0010	E4	mg/L	1	08/10/2021 1023	08/10/2021 1431	MH
pH-E150.1									
pH (pH Units)	7.6			H5	-	1	08/02/2021 1630	08/02/2021 1638	CWB
Temperature (°C)	24			H5	-	1	08/02/2021 1630	08/02/2021 1638	CWB
Turbidity-E180.1									
Turbidity	20		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.053	0.0032	0.10	E4	mg/L	1	08/08/2021 1145	08/11/2021 1200	MH
Calcium	1300		40		mg/L	10	08/08/2021 1145	08/11/2021 1236	MH
Iron	15		0.30		mg/L	1	08/08/2021 1145	08/11/2021 1159	MH
Magnesium	42		3.0		mg/L	1	08/08/2021 1145	08/11/2021 1159	MH
Potassium	8.6		5.0		mg/L	1	08/08/2021 1145	08/11/2021 1159	MH
Silica	68		0.20		mg/L	1	08/08/2021 1145	08/11/2021 1200	MH
Sodium	ND		5.0		mg/L	1	08/08/2021 1145	08/11/2021 1159	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	18		4.0		mg/L	100	08/06/2021 1115	08/11/2021 0843	MH
Antimony	ND		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Arsenic	0.013		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Barium	0.18		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Beryllium	0.0012		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Cadmium	0.0019		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Chromium	0.032		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1007	MH
Cobalt	0.00870		0.00125		mg/L	5	08/06/2021 1115	08/11/2021 1007	MH
Copper	0.54		0.050		mg/L	100	08/06/2021 1115	08/11/2021 0843	MH
Lead	0.11		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Manganese	1.5		0.025		mg/L	100	08/06/2021 1115	08/11/2021 0843	MH
Molybdenum	0.0099		0.00025		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Nickel	0.045		0.0025		mg/L	5	08/06/2021 1115	08/11/2021 1007	MH
Selenium	0.013		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-07

Client Sample ID: D32-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.00038	0.000021	0.00050	E4	mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Thallium	0.00040	0.000023	0.00050	E4	mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Uranium	0.0024		0.00050		mg/L	1	08/06/2021 1115	08/10/2021 1433	MH
Zinc	0.29		0.20		mg/L	5	08/06/2021 1115	08/11/2021 1007	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.00036	0.0010	E8	mg/L	1	08/09/2021 0714	08/09/2021 1257	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	ND		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
Nitrogen, Nitrate (As N)	ND		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 2016	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1859	JG
Calculation-Ion Balance									
Anion	18.4				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	1.55				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	84.4				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	1.9		0.50		mg/L	1	08/04/2021 1600	08/05/2021 1300	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	910		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	8.0		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	4.0		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	920		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	100		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-07

Client Sample ID: D32-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	110		20		mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	4100		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	ND		0.50		mg/L	1	08/10/2021 1030	08/10/2021 1538	JG
Silica-SM4500-SiO2 C									
Silica	ND		2.0		mg/L	1	08/17/2021 1030	08/17/2021 1330	AGC

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-08

Client Sample ID: D46-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Hardness, Dissolved-[CALC]									
Hardness, Calcium/Magnesium (As CaCO3) Dissolved	98		22		mg/L	1	08/02/2021 1845	08/10/2021 1838	MH
Hardness-Calculation									
Hardness, Calcium/Magnesium (As CaCO3)	2200				mg/L	1	08/08/2021 1145	08/11/2021 1204	MH
Total Nitrogen (NO2+NO3+TKN)-Calculation									
Nitrogen, Total	9.5				mg/L	1	08/04/2021 1600	08/05/2021 1300	JG
Nitrate + Nitrite Sum-Calculation									
Nitrate and Nitrite Sum	0.59		0.10		mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
ICP Dissolved Metals-E 200.7 (4.4)									
Boron	0.041	0.0032	0.10	E4	mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
Calcium	39		4.0		mg/L	1	08/02/2021 1845	08/10/2021 1838	MH
Iron	ND		0.30		mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
Magnesium	ND		3.0		mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
Potassium	6.0		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
Silica	7.1		0.20		mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
Sodium	ND		5.0		mg/L	1	08/02/2021 1845	08/06/2021 1417	MH
ICP/MS Dissolved Metals-E 200.8 (5.4)									
Aluminum	0.061		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1237	CR
Antimony	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Arsenic	0.0019		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Barium	0.033		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Beryllium	ND		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1237	CR
Cadmium	ND		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Chromium	ND		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
Cobalt	0.00036		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
Copper	0.078		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
Lead	ND		0.00050		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Manganese	0.058		0.00025		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
Molybdenum	0.0099		0.00025		mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Nickel	0.0024		0.00050		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
Selenium	0.00038	0.00025	0.0025	E4	mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Silver	0.000061	0.000021	0.00050	E4	mg/L	1	08/02/2021 1845	08/03/2021 1417	CR

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-08

Client Sample ID: D46-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Thallium	ND	0.000023	0.00050	E8	mg/L	1	08/02/2021 1845	08/03/2021 1417	CR
Zinc	ND		0.040		mg/L	1	08/02/2021 1845	08/05/2021 1657	CR
CVAA Dissolved Mercury-E 245.1									
Mercury	0.000042	0.0000041	0.0010	E4	mg/L	1	08/10/2021 1023	08/10/2021 1434	MH
pH-E150.1									
pH (pH Units)	7.3			H5	-	1	08/02/2021 1630	08/02/2021 1639	CWB
Temperature (°C)	24			H5	-	1	08/02/2021 1630	08/02/2021 1639	CWB
Turbidity-E180.1									
Turbidity	19		0.10	H1	NTU	1	08/02/2021 1500	08/02/2021 1553	CWB
ICP Total Metals-E200.7 (4.4)									
Boron	0.24	0.016	0.50	E4	mg/L	1	08/08/2021 1145	08/11/2021 1204	MH
Calcium	820		20		mg/L	1	08/08/2021 1145	08/11/2021 1203	MH
Iron	44		1.5		mg/L	1	08/08/2021 1145	08/11/2021 1203	MH
Magnesium	33		15		mg/L	1	08/08/2021 1145	08/11/2021 1204	MH
Potassium	ND		25	D5	mg/L	1	08/08/2021 1145	08/11/2021 1203	MH
Silica	190		1.0		mg/L	1	08/08/2021 1145	08/11/2021 1204	MH
Sodium	ND		25	D5	mg/L	1	08/08/2021 1145	08/11/2021 1204	MH
ICP/MS Total Metals-E200.8 (5.4)									
Aluminum	39		20		mg/L	100	08/06/2021 1115	08/11/2021 0847	MH
Antimony	ND		0.0025	D5	mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Arsenic	0.016		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Barium	0.41		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Beryllium	0.0033		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Cadmium	0.0030		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Chromium	0.036		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Cobalt	0.0233		0.00125		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Copper	2.8		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Lead	0.13		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Manganese	3.1		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Molybdenum	0.025		0.0013		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Nickel	0.034		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Selenium	0.040		0.013		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-08

Client Sample ID: D46-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Silver	0.0023	0.00011	0.0025	E4	mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Thallium	0.0010	0.00012	0.0025	E4	mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Uranium	0.0037		0.0025		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
Zinc	0.63		0.20		mg/L	1	08/06/2021 1115	08/10/2021 1437	MH
CVAA Total Mercury-E245.1									
Mercury	ND	0.0018	0.0050	E8	mg/L	1	08/09/2021 0714	08/09/2021 1259	MH
Anions by Ion Chromatography-E300.0 (2.1)									
Chloride	1.9		1.0		mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
Fluoride	ND		0.50		mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
Nitrogen, Nitrate (As N)	0.59		0.50	H3	mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
Nitrogen, Nitrite (As N)	ND		0.10	H3	mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
Phosphorus, Dissolved Orthophosphate (As P)	ND		0.50	N1	mg/L	1	07/28/2021 1640	08/03/2021 2034	JG
Sulfate	ND		5.0		mg/L	1	07/28/2021 1640	07/28/2021 1917	JG
Calculation-Ion Balance									
Anion	6.96				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation	2.11				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Cation/Anion, % Difference	53.4				meq/L	1	08/18/2021 1402	08/18/2021 1403	KB
Total Kjeldahl Nitrogen-PAI-DK01									
Nitrogen, Total Kjeldahl	8.9		0.50		mg/L	1	08/04/2021 1600	08/05/2021 1300	JG
Alkalinity-SM2320B									
Alkalinity, Bicarbonate (As CaCO3)	330		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Carbonate (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Hydroxide (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Phenolphthalein (As CaCO3)	ND		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Alkalinity, Total (As CaCO3)	330		2.0		mg/L	1	08/05/2021 1240	08/05/2021 1735	EJ
Specific Conductance-SM2510 B									
Conductivity	310		0.10		µmhos/cm	1	08/03/2021 1510	08/03/2021 1537	CWB

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Lab Sample ID: 21G0719-08

Client Sample ID: D46-072221
Collection Date/Time: 07/22/2021 2344
Matrix: Storm Water
Order Name: Baseline Stormwater Monitoring

Analyses	Result	MDL	PQL	Qual	Units	DF	Prep Date	Analysis Date	Analyst
Total Dissolved Solids (Residue, Filterable)-SM2540 C									
Total Dissolved Solids (Residue, Filterable)	ND		20	Q9	mg/L	1	07/29/2021 0808	08/03/2021 0908	EJ
Total Suspended Solids (Residue, Non-Filterable)-SM2540 D									
Total Suspended Solids	6600		10		mg/L	1	07/29/2021 0810	07/30/2021 0803	JG
Ammonia as N-SM4500-NH3 B,C									
Nitrogen, Ammonia (As N)	1.8		0.50		mg/L	1	08/10/2021 1030	08/10/2021 1538	JG
Silica-SM4500-SiO2 C									
Silica	9.9		2.0		mg/L	1	08/17/2021 1030	08/17/2021 1330	AGC

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107367 - E 200.7 (4.4)										
Blank (2107367-BLK1) Prepared & Analyzed: 08/06/2021										
Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	ND	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Silica	ND	0.20	mg/L							
Sodium	ND	5.0	mg/L							
LCS (2107367-BS1) Prepared & Analyzed: 08/06/2021										
Boron	0.94	0.10	mg/L	1.000		94	85-115			
Calcium	9.6	4.0	mg/L	10.00		96	85-115			
Iron	0.91	0.30	mg/L	1.000		91	85-115			
Magnesium	9.3	3.0	mg/L	10.00		93	85-115			
Potassium	10	5.0	mg/L	10.00		101	85-115			
Sodium	10	5.0	mg/L	10.00		105	85-115			
LCS (2107367-BS2) Prepared & Analyzed: 08/06/2021										
Silica	2.3	0.20	mg/L	2.143		109	85-115			
LCS Dup (2107367-BSD1) Prepared & Analyzed: 08/06/2021										
Boron	0.94	0.10	mg/L	1.000		94	85-115	0.2	20	
Calcium	9.6	4.0	mg/L	10.00		96	85-115	0.09	20	
Iron	0.91	0.30	mg/L	1.000		91	85-115	0.3	20	
Magnesium	9.3	3.0	mg/L	10.00		93	85-115	0.2	20	
Potassium	10	5.0	mg/L	10.00		101	85-115	0.002	20	
Sodium	10	5.0	mg/L	10.00		105	85-115	0.3	20	
LCS Dup (2107367-BSD2) Prepared & Analyzed: 08/06/2021										
Silica	2.3	0.20	mg/L	2.143		108	85-115	1	20	
Matrix Spike (2107367-MS1) Source: 21G0743-01 Prepared & Analyzed: 08/06/2021										
Boron	1.1	0.10	mg/L	1.000	0.047	104	70-130			
Calcium	120	4.0	mg/L	10.00	110	51	70-130			M3
Iron	1.1	0.30	mg/L	1.000	0.14	92	70-130			
Magnesium	28	3.0	mg/L	10.00	19	89	70-130			
Potassium	22	5.0	mg/L	10.00	12	101	70-130			
Sodium	35	5.0	mg/L	10.00	25	104	70-130			
Matrix Spike (2107367-MS2) Source: 21G0695-07 Prepared & Analyzed: 08/06/2021										
Boron	1.2	0.10	mg/L	1.000	0.020	121	70-130			
Calcium	25	4.0	mg/L	10.00	16	97	70-130			
Iron	1.0	0.30	mg/L	1.000	0.015	99	70-130			
Magnesium	11	3.0	mg/L	10.00	0.93	101	70-130			
Potassium	15	5.0	mg/L	10.00	3.1	117	70-130			
Sodium	13	5.0	mg/L	10.00	ND	126	70-130			
Matrix Spike (2107367-MS3) Source: 21G0743-01 Prepared & Analyzed: 08/06/2021										
Silica	35	0.20	mg/L	2.143	33	80	70-130			

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 2107367 - E 200.7 (4.4)

Matrix Spike (2107367-MS4)	Source: 21G0695-07			Prepared & Analyzed: 08/06/2021						
Silica	6.2	0.20	mg/L	2.143	3.9	108	70-130			

Batch 2108030 - E 200.8 (5.4)

Blank (2108030-BLK1)	Prepared & Analyzed: 08/03/2021									
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Aluminum	ND	0.040	mg/L							
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Cobalt	ND	0.00025	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Molybdenum	ND	0.00025	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Silver	0.00012	0.00050	mg/L							
Thallium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							

LCS (2108030-BS1)

LCS (2108030-BS1)	Prepared & Analyzed: 08/03/2021									
Aluminum	0.098	0.040	mg/L	0.1000		98	85-115			
Antimony	0.051	0.00050	mg/L	0.05000		103	85-115			
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115			
Barium	0.048	0.00050	mg/L	0.05000		97	85-115			
Beryllium	0.049	0.00025	mg/L	0.05000		99	85-115			
Cadmium	0.050	0.00025	mg/L	0.05000		99	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		98	85-115			
Cobalt	0.048	0.00025	mg/L	0.05000		97	85-115			
Copper	0.047	0.00050	mg/L	0.05000		95	85-115			
Lead	0.047	0.00050	mg/L	0.05000		94	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		98	85-115			
Molybdenum	0.048	0.00025	mg/L	0.05000		96	85-115			
Nickel	0.047	0.00050	mg/L	0.05000		93	85-115			
Selenium	0.048	0.0025	mg/L	0.05000		96	85-115			
Silver	0.046	0.00050	mg/L	0.05000		91	85-115			
Thallium	0.045	0.00050	mg/L	0.05000		90	85-115			
Zinc	0.10	0.040	mg/L	0.1000		101	85-115			

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
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Batch 2108030 - E 200.8 (5.4)

LCS Dup (2108030-BSD1)

Prepared & Analyzed: 08/03/2021

Aluminum	0.098	0.040	mg/L	0.1000		98	85-115	0.2	20	
Antimony	0.052	0.00050	mg/L	0.05000		103	85-115	0.4	20	
Arsenic	0.048	0.00050	mg/L	0.05000		96	85-115	0.07	20	
Barium	0.048	0.00050	mg/L	0.05000		96	85-115	0.7	20	
Beryllium	0.049	0.00025	mg/L	0.05000		98	85-115	0.5	20	
Cadmium	0.049	0.00025	mg/L	0.05000		98	85-115	0.6	20	
Chromium	0.050	0.00050	mg/L	0.05000		99	85-115	1	20	
Cobalt	0.048	0.00025	mg/L	0.05000		95	85-115	2	20	
Copper	0.048	0.00050	mg/L	0.05000		96	85-115	1	20	
Lead	0.047	0.00050	mg/L	0.05000		95	85-115	0.7	20	
Manganese	0.049	0.00025	mg/L	0.05000		97	85-115	0.3	20	
Molybdenum	0.049	0.00025	mg/L	0.05000		97	85-115	0.9	20	
Nickel	0.047	0.00050	mg/L	0.05000		94	85-115	1	20	
Selenium	0.048	0.0025	mg/L	0.05000		96	85-115	0.1	20	
Silver	0.046	0.00050	mg/L	0.05000		91	85-115	0.3	20	
Thallium	0.045	0.00050	mg/L	0.05000		90	85-115	0.8	20	
Zinc	0.10	0.040	mg/L	0.1000		100	85-115	1	20	

Matrix Spike (2108030-MS1)

Source: 21G0520-01

Prepared & Analyzed: 08/03/2021

Aluminum	0.49	0.040	mg/L	0.1000	0.37	122	70-130			
Antimony	0.067	0.00050	mg/L	0.05000	0.00017	133	70-130			M1
Arsenic	0.067	0.00050	mg/L	0.05000	0.0021	129	70-130			
Barium	0.11	0.00050	mg/L	0.05000	0.046	120	70-130			
Beryllium	0.064	0.00025	mg/L	0.05000	0.000041	127	70-130			
Cadmium	0.063	0.00025	mg/L	0.05000	ND	126	70-130			
Chromium	0.061	0.00050	mg/L	0.05000	0.00038	121	70-130			
Cobalt	0.058	0.00025	mg/L	0.05000	0.00034	116	70-130			
Copper	0.059	0.00050	mg/L	0.05000	0.0024	113	70-130			
Lead	0.059	0.00050	mg/L	0.05000	0.00025	118	70-130			
Manganese	0.070	0.00025	mg/L	0.05000	0.0099	119	70-130			
Molybdenum	0.061	0.00025	mg/L	0.05000	0.00048	120	70-130			
Nickel	0.057	0.00050	mg/L	0.05000	0.0012	113	70-130			
Selenium	0.069	0.0025	mg/L	0.05000	ND	137	70-130			M1
Silver	0.057	0.00050	mg/L	0.05000	0.00018	113	70-130			
Thallium	0.059	0.00050	mg/L	0.05000	0.000036	117	70-130			
Zinc	0.13	0.040	mg/L	0.1000	ND	128	70-130			

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108030 - E 200.8 (5.4)										
Matrix Spike (2108030-MS2)		Source: 21G0719-01			Prepared & Analyzed: 08/03/2021					
Aluminum	0.18	0.040	mg/L	0.1000	0.073	103	70-130			
Antimony	0.057	0.00050	mg/L	0.05000	0.00027	113	70-130			
Arsenic	0.062	0.00050	mg/L	0.05000	0.0059	111	70-130			
Barium	0.13	0.00050	mg/L	0.05000	0.071	112	70-130			
Beryllium	0.056	0.00025	mg/L	0.05000	0.000056	112	70-130			
Cadmium	0.054	0.00025	mg/L	0.05000	0.000067	108	70-130			
Chromium	0.051	0.00050	mg/L	0.05000	0.00016	101	70-130			
Cobalt	0.053	0.00025	mg/L	0.05000	0.0046	97	70-130			
Copper	0.055	0.00050	mg/L	0.05000	0.0075	94	70-130			
Lead	0.054	0.00050	mg/L	0.05000	0.00032	106	70-130			
Manganese	1.2	0.025	mg/L	0.05000	1.1	129	70-130			
Molybdenum	0.064	0.00025	mg/L	0.05000	0.012	104	70-130			
Nickel	0.048	0.00050	mg/L	0.05000	0.00089	94	70-130			
Selenium	0.062	0.0025	mg/L	0.05000	0.00030	123	70-130			
Silver	0.048	0.00050	mg/L	0.05000	0.00020	95	70-130			
Thallium	0.053	0.00050	mg/L	0.05000	0.000035	107	70-130			
Zinc	0.11	0.040	mg/L	0.1000	0.0080	103	70-130			
Batch 2108107 - E245.1										
Blank (2108107-BLK1)					Prepared & Analyzed: 08/09/2021					
Mercury	ND	0.0010	mg/L							
LCS (2108107-BS1)					Prepared & Analyzed: 08/09/2021					
Mercury	0.0051	0.0010	mg/L	0.005000		103	85-115			
LCS Dup (2108107-BSD1)					Prepared & Analyzed: 08/09/2021					
Mercury	0.0051	0.0010	mg/L	0.005000		103	85-115	0.2	20	
Matrix Spike (2108107-MS1)		Source: 21G0727-01			Prepared & Analyzed: 08/09/2021					
Mercury	0.0051	0.0010	mg/L	0.005000	ND	101	70-130			
Matrix Spike (2108107-MS2)		Source: 21G0740-01			Prepared & Analyzed: 08/09/2021					
Mercury	0.0052	0.0010	mg/L	0.005000	ND	103	70-130			
Matrix Spike Dup (2108107-MSD1)		Source: 21G0727-01			Prepared & Analyzed: 08/09/2021					
Mercury	0.0052	0.0010	mg/L	0.005000	ND	103	70-130	2	20	
Matrix Spike Dup (2108107-MSD2)		Source: 21G0740-01			Prepared & Analyzed: 08/09/2021					
Mercury	0.0052	0.0010	mg/L	0.005000	ND	104	70-130	0.7	20	
Batch 2108109 - E200.7 (4.4)										
Blank (2108109-BLK1)					Prepared: 08/06/2021 Analyzed: 08/09/2021					
Boron	ND	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	0.0059	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Silica	ND	0.20	mg/L							
Sodium	ND	5.0	mg/L							

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108109 - E200.7 (4.4)										
LCS (2108109-BS1)				Prepared: 08/06/2021 Analyzed: 08/09/2021						
Boron	0.98	0.10	mg/L	1.000		98	85-115			
Calcium	10	4.0	mg/L	10.00		104	85-115			
Iron	1.0	0.30	mg/L	1.000		101	85-115			
Magnesium	10	3.0	mg/L	10.00		101	85-115			
Potassium	9.5	5.0	mg/L	10.00		95	85-115			
Sodium	10	5.0	mg/L	10.00		104	85-115			
LCS (2108109-BS2)				Prepared: 08/06/2021 Analyzed: 08/09/2021						
Silica	9.4	0.20	mg/L	10.00		94	85-115			
LCS Dup (2108109-BSD1)				Prepared: 08/06/2021 Analyzed: 08/09/2021						
Boron	0.97	0.10	mg/L	1.000		97	85-115	1	20	
Calcium	10	4.0	mg/L	10.00		102	85-115	2	20	
Iron	0.99	0.30	mg/L	1.000		99	85-115	2	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	2	20	
Potassium	9.3	5.0	mg/L	10.00		93	85-115	2	20	
Sodium	10	5.0	mg/L	10.00		101	85-115	2	20	
LCS Dup (2108109-BSD2)				Prepared: 08/06/2021 Analyzed: 08/09/2021						
Silica	9.3	0.20	mg/L	10.00		93	85-115	0.5	20	
Matrix Spike (2108109-MS1)				Source: 21G0653-01		Prepared: 08/06/2021 Analyzed: 08/09/2021				
Boron	1.0	0.10	mg/L	1.000	0.066	96	70-130			
Calcium	28	4.0	mg/L	10.00	18	101	70-130			
Iron	1.7	0.30	mg/L	1.000	0.57	108	70-130			
Magnesium	14	3.0	mg/L	10.00	4.6	99	70-130			
Potassium	12	5.0	mg/L	10.00	2.9	93	70-130			
Sodium	51	5.0	mg/L	10.00	40	105	70-130			
Matrix Spike (2108109-MS2)				Source: 21H0104-01		Prepared: 08/06/2021 Analyzed: 08/09/2021				
Boron	1.0	0.10	mg/L	1.000	0.048	97	70-130			
Calcium	73	4.0	mg/L	10.00	64	90	70-130			
Iron	1.2	0.30	mg/L	1.000	0.18	99	70-130			
Magnesium	30	3.0	mg/L	10.00	21	93	70-130			
Potassium	150	5.0	mg/L	10.00	140	53	70-130			M3
Sodium	250	5.0	mg/L	10.00	250	31	70-130			M3
Matrix Spike (2108109-MS3)				Source: 21G0695-10		Prepared: 08/06/2021 Analyzed: 08/09/2021				
Silica	34	0.20	mg/L	10.00	25	88	70-130			
Matrix Spike (2108109-MS4)				Source: 21H0104-01		Prepared: 08/06/2021 Analyzed: 08/09/2021				
Silica	30	0.20	mg/L	10.00	22	90	70-130			
Batch 2108111 - E200.8 (5.4)										

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108111 - E200.8 (5.4)										
Blank (2108111-BLK1)										
Prepared: 08/06/2021 Analyzed: 08/09/2021										
Aluminum	ND	0.040	mg/L							
Antimony	ND	0.00050	mg/L							
Arsenic	ND	0.00050	mg/L							
Barium	ND	0.00050	mg/L							
Beryllium	ND	0.00025	mg/L							
Cadmium	ND	0.00025	mg/L							
Chromium	ND	0.00050	mg/L							
Cobalt	ND	0.000250	mg/L							
Copper	ND	0.00050	mg/L							
Lead	ND	0.00050	mg/L							
Manganese	ND	0.00025	mg/L							
Molybdenum	ND	0.00025	mg/L							
Nickel	ND	0.00050	mg/L							
Selenium	ND	0.0025	mg/L							
Silver	0.000029	0.00050	mg/L							
Thallium	0.000054	0.00050	mg/L							
Uranium	ND	0.00050	mg/L							
Zinc	ND	0.040	mg/L							

LCS (2108111-BS1)										
Prepared: 08/06/2021 Analyzed: 08/09/2021										
Aluminum	0.11	0.040	mg/L	0.1000		106	85-115			
Antimony	0.051	0.00050	mg/L	0.05000		102	85-115			
Arsenic	0.052	0.00050	mg/L	0.05000		103	85-115			
Barium	0.049	0.00050	mg/L	0.05000		99	85-115			
Beryllium	0.052	0.00025	mg/L	0.05000		104	85-115			
Cadmium	0.051	0.00025	mg/L	0.05000		102	85-115			
Chromium	0.049	0.00050	mg/L	0.05000		99	85-115			
Cobalt	0.0494	0.000250	mg/L	0.05000		99	85-115			
Copper	0.050	0.00050	mg/L	0.05000		100	85-115			
Lead	0.049	0.00050	mg/L	0.05000		98	85-115			
Manganese	0.049	0.00025	mg/L	0.05000		99	85-115			
Molybdenum	0.049	0.00025	mg/L	0.05000		98	85-115			
Nickel	0.050	0.00050	mg/L	0.05000		99	85-115			
Selenium	0.049	0.0025	mg/L	0.05000		98	85-115			
Silver	0.049	0.00050	mg/L	0.05000		99	85-115			
Thallium	0.049	0.00050	mg/L	0.05000		97	85-115			
Uranium	0.049	0.00050	mg/L	0.05000		98	85-115			
Zinc	0.11	0.040	mg/L	0.1000		110	85-115			

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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108111 - E200.8 (5.4)										
LCS Dup (2108111-BSD1)										
					Prepared: 08/06/2021 Analyzed: 08/09/2021					
Aluminum	0.10	0.040	mg/L	0.1000		105	85-115	0.5	20	
Antimony	0.051	0.00050	mg/L	0.05000		101	85-115	0.6	20	
Arsenic	0.051	0.00050	mg/L	0.05000		101	85-115	2	20	
Barium	0.049	0.00050	mg/L	0.05000		99	85-115	0.2	20	
Beryllium	0.051	0.00025	mg/L	0.05000		103	85-115	0.9	20	
Cadmium	0.052	0.00025	mg/L	0.05000		104	85-115	1	20	
Chromium	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Cobalt	0.0483	0.000250	mg/L	0.05000		97	85-115	2	20	
Copper	0.049	0.00050	mg/L	0.05000		98	85-115	2	20	
Lead	0.049	0.00050	mg/L	0.05000		98	85-115	0.2	20	
Manganese	0.048	0.00025	mg/L	0.05000		97	85-115	2	20	
Molybdenum	0.049	0.00025	mg/L	0.05000		97	85-115	0.8	20	
Nickel	0.049	0.00050	mg/L	0.05000		98	85-115	1	20	
Selenium	0.057	0.0025	mg/L	0.05000		115	85-115	15	20	
Silver	0.050	0.00050	mg/L	0.05000		99	85-115	0.3	20	
Thallium	0.049	0.00050	mg/L	0.05000		97	85-115	0.1	20	
Uranium	0.049	0.00050	mg/L	0.05000		98	85-115	0.5	20	
Zinc	0.11	0.040	mg/L	0.1000		106	85-115	3	20	

Matrix Spike (2108111-MS1)										
					Source: 21G0644-01					
					Prepared: 08/06/2021 Analyzed: 08/10/2021					
Aluminum	ND	0.40	mg/L	0.1000	ND		70-130			M4
Antimony	0.051	0.00050	mg/L	0.05000	ND	102	70-130			
Arsenic	0.052	0.00050	mg/L	0.05000	0.00035	103	70-130			
Barium	0.062	0.00050	mg/L	0.05000	0.012	100	70-130			
Beryllium	0.048	0.0025	mg/L	0.05000	ND	97	70-130			
Cadmium	0.044	0.00025	mg/L	0.05000	ND	89	70-130			
Chromium	0.049	0.0050	mg/L	0.05000	0.00033	96	70-130			
Cobalt	0.0466	0.00250	mg/L	0.05000	ND	93	70-130			
Copper	0.047	0.0050	mg/L	0.05000	0.0031	88	70-130			
Lead	0.049	0.00050	mg/L	0.05000	0.000065	99	70-130			
Manganese	0.75	0.0025	mg/L	0.05000	0.68	138	70-130			M3
Molybdenum	0.052	0.00025	mg/L	0.05000	0.0023	100	70-130			
Nickel	0.046	0.0050	mg/L	0.05000	ND	91	70-130			
Selenium	0.059	0.0025	mg/L	0.05000	0.0033	111	70-130			
Silver	0.039	0.00050	mg/L	0.05000	0.00035	77	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00018	100	70-130			
Uranium	0.054	0.00050	mg/L	0.05000	0.000079	108	70-130			
Zinc	0.33	0.40	mg/L	0.1000	0.23	107	70-130			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108111 - E200.8 (5.4)										
Matrix Spike (2108111-MS2)		Source: 21G0726-03			Prepared: 08/06/2021 Analyzed: 08/09/2021					
Aluminum	0.17	0.040	mg/L	0.1000	0.077	94	70-130			
Antimony	0.050	0.00050	mg/L	0.05000	0.00094	99	70-130			
Arsenic	0.056	0.00050	mg/L	0.05000	0.0075	97	70-130			
Barium	0.096	0.00050	mg/L	0.05000	0.052	88	70-130			
Beryllium	0.049	0.00025	mg/L	0.05000	ND	98	70-130			
Cadmium	0.046	0.00025	mg/L	0.05000	0.000065	92	70-130			
Chromium	0.046	0.00050	mg/L	0.05000	0.0011	90	70-130			
Cobalt	0.0443	0.000250	mg/L	0.05000	0.000427	88	70-130			
Copper	0.15	0.00050	mg/L	0.05000	0.13	55	70-130			M7
Lead	0.052	0.00050	mg/L	0.05000	0.0029	99	70-130			
Manganese	0.053	0.00025	mg/L	0.05000	0.0080	90	70-130			
Molybdenum	0.074	0.00025	mg/L	0.05000	0.026	95	70-130			
Nickel	0.045	0.00050	mg/L	0.05000	0.0025	84	70-130			
Selenium	0.054	0.0025	mg/L	0.05000	0.0036	101	70-130			
Silver	0.041	0.00050	mg/L	0.05000	0.000055	82	70-130			
Thallium	0.050	0.00050	mg/L	0.05000	0.00026	100	70-130			
Uranium	0.061	0.00050	mg/L	0.05000	0.0063	109	70-130			
Zinc	0.10	0.040	mg/L	0.1000	0.011	93	70-130			

Batch 2108119 - E200.7 (4.4)

Blank (2108119-BLK1)				Prepared: 08/08/2021 Analyzed: 08/10/2021						
Boron	0.0040	0.10	mg/L							
Calcium	ND	4.0	mg/L							
Iron	0.012	0.30	mg/L							
Magnesium	ND	3.0	mg/L							
Potassium	ND	5.0	mg/L							
Silica	ND	0.20	mg/L							
Sodium	ND	5.0	mg/L							

LCS (2108119-BS1)				Prepared: 08/08/2021 Analyzed: 08/10/2021						
Boron	1.0	0.10	mg/L	1.000		100	85-115			
Calcium	10	4.0	mg/L	10.00		102	85-115			
Iron	1.0	0.30	mg/L	1.000		102	85-115			
Magnesium	10	3.0	mg/L	10.00		100	85-115			
Potassium	10	5.0	mg/L	10.00		100	85-115			
Sodium	10	5.0	mg/L	10.00		102	85-115			

LCS (2108119-BS2)				Prepared: 08/08/2021 Analyzed: 08/10/2021						
Silica	9.5	0.20	mg/L	10.00		95	85-115			

LCS Dup (2108119-BSD1)				Prepared: 08/08/2021 Analyzed: 08/10/2021						
Boron	1.0	0.10	mg/L	1.000		100	85-115	0.3	20	
Calcium	10	4.0	mg/L	10.00		103	85-115	0.9	20	
Iron	1.0	0.30	mg/L	1.000		101	85-115	0.4	20	
Magnesium	10	3.0	mg/L	10.00		100	85-115	0.1	20	
Potassium	10	5.0	mg/L	10.00		100	85-115	0.05	20	
Sodium	10	5.0	mg/L	10.00		103	85-115	0.7	20	

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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108119 - E200.7 (4.4)										
LCS Dup (2108119-BSD2)				Prepared: 08/08/2021 Analyzed: 08/10/2021						
Silica	9.6	0.20	mg/L	10.00		96	85-115	0.9	20	
Matrix Spike (2108119-MS1)				Source: 21G0689-04		Prepared: 08/08/2021 Analyzed: 08/10/2021				
Boron	1.0	0.10	mg/L	1.000	0.036	101	70-130			
Calcium	68	4.0	mg/L	10.00	60	83	70-130			
Iron	2.7	0.30	mg/L	1.000	1.5	116	70-130			
Magnesium	34	3.0	mg/L	10.00	24	95	70-130			
Potassium	13	5.0	mg/L	10.00	3.2	98	70-130			
Sodium	39	5.0	mg/L	10.00	30	91	70-130			
Matrix Spike (2108119-MS2)				Source: 21H0007-02		Prepared: 08/08/2021 Analyzed: 08/11/2021				
Boron	1.4	0.10	mg/L	1.000	0.33	103	70-130			
Calcium	210	4.0	mg/L	10.00	200	34	70-130			M3
Iron	1.9	0.30	mg/L	1.000	0.90	104	70-130			
Magnesium	48	3.0	mg/L	10.00	38	98	70-130			
Potassium	34	5.0	mg/L	10.00	24	99	70-130			
Sodium	170	5.0	mg/L	10.00	160	54	70-130			M3
Matrix Spike (2108119-MS3)				Source: 21H0138-01		Prepared: 08/08/2021 Analyzed: 08/11/2021				
Silica	23	0.20	mg/L	10.00	15	81	70-130			
Batch 2108129 - E 245.1										
Blank (2108129-BLK1)				Prepared & Analyzed: 08/10/2021						
Mercury	0.000037	0.0010	mg/L							
LCS (2108129-BS1)				Prepared & Analyzed: 08/10/2021						
Mercury	0.0049	0.0010	mg/L	0.005000		97	85-115			
LCS Dup (2108129-BSD1)				Prepared & Analyzed: 08/10/2021						
Mercury	0.0050	0.0010	mg/L	0.005000		101	85-115	3	20	
Matrix Spike (2108129-MS1)				Source: 21G0731-01		Prepared & Analyzed: 08/10/2021				
Mercury	5.0		ug/L	5.000	0.17	97	70-130			
Matrix Spike (2108129-MS2)				Source: 21H0155-01		Prepared & Analyzed: 08/10/2021				
Mercury	0.0046	0.0010	mg/L	0.005000	0.000038	91	70-130			
Matrix Spike Dup (2108129-MSD1)				Source: 21G0731-01		Prepared & Analyzed: 08/10/2021				
Mercury	5.0		ug/L	5.000	0.17	97	70-130	0.5	20	
Matrix Spike Dup (2108129-MSD2)				Source: 21H0155-01		Prepared & Analyzed: 08/10/2021				
Mercury	0.0047	0.0010	mg/L	0.005000	0.000038	93	70-130	1	20	

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QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107341 - SM2540 C										
Duplicate (2107341-DUP1) Source: 21G0649-03 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Total Dissolved Solids (Residue, Filterable)	490	20	mg/L		500			2	5	
Duplicate (2107341-DUP2) Source: 21G0649-04 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Total Dissolved Solids (Residue, Filterable)	350	20	mg/L		350			0.9	5	
Duplicate (2107341-DUP3) Source: 21G0649-05 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Total Dissolved Solids (Residue, Filterable)	190	20	mg/L		190			2	5	
Batch 2107342 - SM2540 D										
Duplicate (2107342-DUP1) Source: 21G0553-01 Prepared: 07/29/2021 Analyzed: 07/30/2021										
Total Suspended Solids	35	10	mg/L		36			3	5	
Duplicate (2107342-DUP2) Source: 21G0695-01 Prepared: 07/29/2021 Analyzed: 07/30/2021										
Total Suspended Solids	170	10	mg/L		170			2	5	
Batch 2108015 - E150.1										
Duplicate (2108015-DUP1) Source: 21G0695-09 Prepared & Analyzed: 08/02/2021										
pH (pH Units)	6.9		-		6.9			0.1	200	H5
Temperature (°C)	19		-		19			0.5	200	H5
Duplicate (2108015-DUP2) Source: 21G0719-04 Prepared & Analyzed: 08/02/2021										
pH (pH Units)	7.5		-		7.5			0.5	200	H5
Temperature (°C)	22		-		22			0.5	200	H5
Batch 2108022 - SM5310 C										
Blank (2108022-BLK1) Prepared & Analyzed: 08/03/2021										
Organic Carbon, Total	ND	0.50	mg/L							
LCS (2108022-BS1) Prepared & Analyzed: 08/03/2021										
Organic Carbon, Total	10	0.50	mg/L	10.00		101	90-110			
LCS Dup (2108022-BSD1) Prepared & Analyzed: 08/03/2021										
Organic Carbon, Total	10	0.50	mg/L	10.00		101	90-110	0.4	10	
Matrix Spike (2108022-MS1) Source: 21G0663-01 Prepared & Analyzed: 08/03/2021										
Organic Carbon, Total	10	0.50	mg/L	10.00	ND	101	85-115			
Matrix Spike Dup (2108022-MSD1) Source: 21G0663-01 Prepared & Analyzed: 08/03/2021										
Organic Carbon, Total	10	0.50	mg/L	10.00	ND	102	85-115	0.5	15	
Batch 2108031 - E180.1										
Duplicate (2108031-DUP1) Source: 21G0695-10 Prepared & Analyzed: 08/02/2021										
Turbidity	15	0.10	NTU		14			7	10	H1
Duplicate (2108031-DUP2) Source: 21G0719-08 Prepared & Analyzed: 08/02/2021										
Turbidity	19	0.10	NTU		19			0	10	H1
Batch 2108033 - E150.1										

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108033 - E150.1										
Duplicate (2108033-DUP1) Source: 21G0732-04 Prepared & Analyzed: 08/02/2021										
pH (pH Units)	7.5		-		7.5			0.1	200	H5
Temperature (°C)	23		-		23			0	200	H5
Batch 2108036 - PAI-DK01										
Blank (2108036-BLK1) Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	ND	0.50	mg/L							
LCS (2108036-BS1) Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.1	0.50	mg/L	5.000		101	80-120			
LCS Dup (2108036-BSD1) Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.1	0.50	mg/L	5.000		101	80-120	0	20	
Matrix Spike (2108036-MS1) Source: 21G0003-02 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.6	0.50	mg/L	5.000	0.61	101	80-120			
Matrix Spike (2108036-MS2) Source: 21G0428-01 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.3	0.50	mg/L	5.000	0.87	88	80-120			
Matrix Spike Dup (2108036-MSD1) Source: 21G0003-02 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.3	0.50	mg/L	5.000	0.61	94	80-120	6	20	
Matrix Spike Dup (2108036-MSD2) Source: 21G0428-01 Prepared: 07/29/2021 Analyzed: 08/03/2021										
Nitrogen, Total Kjeldahl	5.1	0.50	mg/L	5.000	0.87	85	80-120	2	20	
Batch 2108038 - SM2510 B										
LCS (2108038-BS1) Prepared & Analyzed: 08/03/2021										
Conductivity	140	0.10	µmhos/cm	141.2		101	0-200			
LCS Dup (2108038-BSD1) Prepared & Analyzed: 08/03/2021										
Conductivity	150	0.10	µmhos/cm	141.2		106	0-200	4	200	
Duplicate (2108038-DUP1) Source: 21G0695-08 Prepared & Analyzed: 08/03/2021										
Conductivity	280	0.10	µmhos/cm		270			1	10	
Duplicate (2108038-DUP2) Source: 21G0719-07 Prepared & Analyzed: 08/03/2021										
Conductivity	100	0.10	µmhos/cm		100			0	10	
Batch 2108070 - PAI-DK01										
Blank (2108070-BLK1) Prepared: 08/04/2021 Analyzed: 08/05/2021										
Nitrogen, Total Kjeldahl	ND	0.50	mg/L							
LCS (2108070-BS1) Prepared: 08/04/2021 Analyzed: 08/05/2021										
Nitrogen, Total Kjeldahl	5.0	0.50	mg/L	5.000		101	80-120			
LCS Dup (2108070-BSD1) Prepared: 08/04/2021 Analyzed: 08/05/2021										
Nitrogen, Total Kjeldahl	5.0	0.50	mg/L	5.000		100	80-120	0.4	20	
Matrix Spike (2108070-MS1) Source: 21H0007-01 Prepared: 08/04/2021 Analyzed: 08/05/2021										
Nitrogen, Total Kjeldahl	6.5	0.50	mg/L	5.000	2.1	87	80-120			

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108070 - PAI-DK01										
Matrix Spike (2108070-MS2)		Source: 21H0029-01		Prepared: 08/04/2021 Analyzed: 08/05/2021						
Nitrogen, Total Kjeldahl	5.4	0.50	mg/L	5.000	0.70	94	80-120			
Matrix Spike Dup (2108070-MSD1)		Source: 21H0007-01		Prepared: 08/04/2021 Analyzed: 08/05/2021						
Nitrogen, Total Kjeldahl	6.3	0.50	mg/L	5.000	2.1	84	80-120	3	20	
Matrix Spike Dup (2108070-MSD2)		Source: 21H0029-01		Prepared: 08/04/2021 Analyzed: 08/05/2021						
Nitrogen, Total Kjeldahl	5.6	0.50	mg/L	5.000	0.70	98	80-120	3	20	
Batch 2108071 - SM4500-NH3 B,C										
Blank (2108071-BLK1)				Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	ND	0.50	mg/L							
LCS (2108071-BS1)				Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000		100	90-110			
LCS Dup (2108071-BSD1)				Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000		99	90-110	2	10	
Matrix Spike (2108071-MS1)		Source: 21G0560-01		Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.090	99	75-120			
Matrix Spike (2108071-MS2)		Source: 21G0564-01		Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.067	99	75-120			
Matrix Spike Dup (2108071-MSD1)		Source: 21G0560-01		Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.090	99	75-120	0.4	20	
Matrix Spike Dup (2108071-MSD2)		Source: 21G0564-01		Prepared & Analyzed: 08/04/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000	0.067	99	75-120	0.5	20	
Batch 2108076 - SM2320B										
Blank (2108076-BLK1)				Prepared & Analyzed: 08/05/2021						
Alkalinity, Bicarbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Carbonate (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Hydroxide (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Phenolphthalein (As CaCO3)	ND	2.0	mg/L							
Alkalinity, Total (As CaCO3)	ND	2.0	mg/L							
LCS (2108076-BS1)				Prepared & Analyzed: 08/05/2021						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		94	90-110			
LCS Dup (2108076-BSD1)				Prepared & Analyzed: 08/05/2021						
Alkalinity, Total (As CaCO3)	240	2.0	mg/L	250.0		96	90-110	2	10	
Matrix Spike (2108076-MS1)		Source: 21G0656-01		Prepared & Analyzed: 08/05/2021						
Alkalinity, Total (As CaCO3)	320	2.0	mg/L	250.0	90	92	70-130			
Matrix Spike Dup (2108076-MSD1)		Source: 21G0656-01		Prepared & Analyzed: 08/05/2021						
Alkalinity, Total (As CaCO3)	320	2.0	mg/L	250.0	90	94	70-130	1	10	
Batch 2108154 - SM4500-SiO2 C										

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Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2108154 - SM4500-SiO2 C										
Blank (2108154-BLK1)				Prepared & Analyzed: 08/10/2021						
Silica	ND	2.0	mg/L							
LCS (2108154-BS1)				Prepared & Analyzed: 08/10/2021						
Silica	8.2	2.0	mg/L	8.000		103	90-110			
LCS Dup (2108154-BSD1)				Prepared & Analyzed: 08/10/2021						
Silica	8.3	2.0	mg/L	8.000		104	90-110	1	20	
Matrix Spike (2108154-MS1)				Source: 21G0719-01		Prepared & Analyzed: 08/10/2021				
Silica	54	10	mg/L	40.00	10	108	85-115			
Matrix Spike Dup (2108154-MSD1)				Source: 21G0719-01		Prepared & Analyzed: 08/10/2021				
Silica	54	10	mg/L	40.00	10	110	85-115	1	20	
Batch 2108160 - SM4500-NH3 B,C										
Blank (2108160-BLK1)				Prepared & Analyzed: 08/10/2021						
Nitrogen, Ammonia (As N)	ND	0.50	mg/L							
LCS (2108160-BS1)				Prepared & Analyzed: 08/10/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000		99	90-110			
LCS Dup (2108160-BSD1)				Prepared & Analyzed: 08/10/2021						
Nitrogen, Ammonia (As N)	5.0	0.50	mg/L	5.000		101	90-110	1	10	
Matrix Spike (2108160-MS1)				Source: 21G0743-01		Prepared & Analyzed: 08/10/2021				
Nitrogen, Ammonia (As N)	5.1	0.50	mg/L	5.000	0.40	95	75-120			
Matrix Spike (2108160-MS2)				Source: 21H0004-01		Prepared & Analyzed: 08/10/2021				
Nitrogen, Ammonia (As N)	4.9	0.50	mg/L	5.000	0.090	95	75-120			
Matrix Spike Dup (2108160-MSD1)				Source: 21G0743-01		Prepared & Analyzed: 08/10/2021				
Nitrogen, Ammonia (As N)	5.2	0.50	mg/L	5.000	0.40	95	75-120	0.4	20	
Matrix Spike Dup (2108160-MSD2)				Source: 21H0004-01		Prepared & Analyzed: 08/10/2021				
Nitrogen, Ammonia (As N)	4.8	0.50	mg/L	5.000	0.090	94	75-120	2	20	
Batch 2108236 - SM4500-SiO2 C										
Blank (2108236-BLK1)				Prepared & Analyzed: 08/17/2021						
Silica	ND	2.0	mg/L							
LCS (2108236-BS1)				Prepared & Analyzed: 08/17/2021						
Silica	8.3	2.0	mg/L	8.000		104	90-110			
LCS Dup (2108236-BSD1)				Prepared & Analyzed: 08/17/2021						
Silica	8.3	2.0	mg/L	8.000		103	90-110	0.2	20	
Matrix Spike (2108236-MS1)				Source: 21H0290-01		Prepared & Analyzed: 08/17/2021				
Silica	56	10	mg/L	40.00	11	114	85-115			
Matrix Spike Dup (2108236-MSD1)				Source: 21H0290-01		Prepared & Analyzed: 08/17/2021				
Silica	55	10	mg/L	40.00	11	112	85-115	2	20	

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107334 - E300.0 (2.1)										
Blank (2107334-BLK1) Prepared & Analyzed: 07/28/2021										
Chloride	ND	1.0	mg/L							
Fluoride	ND	0.50	mg/L							
Nitrogen, Nitrate (As N)	ND	0.50	mg/L							
Nitrogen, Nitrite (As N)	ND	0.10	mg/L							
Phosphorus, Dissolved Orthophosphate (As P)	ND	0.50	mg/L							
Sulfate	ND	5.0	mg/L							
LCS (2107334-BS1) Prepared & Analyzed: 07/28/2021										
Chloride	12	1.0	mg/L	12.50		98	90-110			
Fluoride	1.9	0.50	mg/L	2.000		95	90-110			
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		103	90-110			
Nitrogen, Nitrite (As N)	2.7	0.10	mg/L	2.500		109	90-110			
Phosphorus, Dissolved Orthophosphate (As P)	1.5	0.50	mg/L	2.500		61	90-110			L2
Sulfate	12	5.0	mg/L	12.50		95	90-110			
LCS Dup (2107334-BSD1) Prepared & Analyzed: 07/28/2021										
Chloride	12	1.0	mg/L	12.50		98	90-110	0.02	10	
Fluoride	1.9	0.50	mg/L	2.000		96	90-110	0.4	10	
Nitrogen, Nitrate (As N)	5.1	0.50	mg/L	5.000		103	90-110	0.06	10	
Nitrogen, Nitrite (As N)	2.7	0.10	mg/L	2.500		109	90-110	0.07	10	
Phosphorus, Dissolved Orthophosphate (As P)	1.7	0.50	mg/L	2.500		68	90-110	11	10	L2
Sulfate	12	5.0	mg/L	12.50		95	90-110	0.2	10	
Matrix Spike (2107334-MS1) Source: 21G0726-01 Prepared: 07/28/2021 Analyzed: 08/05/2021										
Chloride	12	1.0	mg/L	12.50	ND	95	80-120			
Fluoride	2.1	0.50	mg/L	2.000	ND	104	80-120			
Nitrogen, Nitrate (As N)	4.8	0.50	mg/L	5.000	ND	97	80-120			
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	ND	101	80-120			
Phosphorus, Dissolved Orthophosphate (As P)	3.0	0.50	mg/L	2.500	ND	120	80-120			M1
Sulfate	12	5.0	mg/L	12.50	ND	98	80-120			
Matrix Spike (2107334-MS2) Source: 21G0722-01 Prepared: 07/28/2021 Analyzed: 08/05/2021										
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120			
Nitrogen, Nitrate (As N)	5.4	0.50	mg/L	5.000	0.70	95	80-120			
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120			
Matrix Spike Dup (2107334-MSD1) Source: 21G0726-01 Prepared: 07/28/2021 Analyzed: 08/05/2021										
Chloride	12	1.0	mg/L	12.50	ND	96	80-120	0.5	10	
Fluoride	2.1	0.50	mg/L	2.000	ND	107	80-120	2	10	
Nitrogen, Nitrate (As N)	4.9	0.50	mg/L	5.000	ND	98	80-120	0.7	10	
Nitrogen, Nitrite (As N)	2.5	0.10	mg/L	2.500	ND	101	80-120	0.7	10	
Phosphorus, Dissolved Orthophosphate (As P)	3.2	0.50	mg/L	2.500	ND	128	80-120	6	10	M1
Sulfate	12	5.0	mg/L	12.50	ND	98	80-120	0.2	10	

Client: Rosemont Copper Company
Project: Baseline Stormwater Monitoring
Work Order: 21G0719
Date Received: 07/28/2021

QC Summary

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch 2107334 - E300.0 (2.1)										
Matrix Spike Dup (2107334-MSD2)										
		Source: 21G0722-01			Prepared: 07/28/2021 Analyzed: 08/05/2021					
Fluoride	1.9	0.50	mg/L	2.000	ND	96	80-120	0.2	10	
Nitrogen, Nitrate (As N)	5.4	0.50	mg/L	5.000	0.70	95	80-120	0.1	10	
Nitrogen, Nitrite (As N)	2.4	0.10	mg/L	2.500	ND	95	80-120	0.3	10	



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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

TURNER WORK ORDER # 2160719 DATE 7/28/12 PAGE 1 OF 1

PROJECT NAME: Rosemont #

CONTACT NAME: David Krizek

COMPANY NAME: Hudbay Minerals

ADDRESS: 5255 E. Williams Circle Ste 106

CITY: Tucson STATE: AZ ZIP CODE: 85711

PHONE: 520.495.3527 FAX:

SAMPLER'S SIGNATURE: *David Krizek*

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX*
D2-07221	7/22/12	2344		SW
D1-30121	7/22/12	2344		
D1-2507221	7/23/12	2315		
D1-1807221	7/22/12	2344		
D1-4507221	7/22/12	2344		
D1-501221	7/22/12	2344		
D32-07221	7/22/12	2344		
D46-07221	7/22/12	2344		

NUMBER OF CONTAINERS	
4	X
4	X
5	X
5	X
3	X
5	X
4	X
4	X

See Attached Sheet
TOC

TURNAROUND REQUIREMENTS:
 Standard (approx. 10 days)*
 Next day 2 Day 5 Day*

*LEGEND
 DW = DRINKING WATER
 GW = GROUNDWATER
 SG = SOLID
 SL = SOIL
 ST = STORMWATER
 MW = WASTEWATER

1. RELINQUISHED BY:
 Signature: *David Krizek*
 Printed Name: David Krizek
 Firm: Rosemont
 Date/Time: 7/28/12 13:12

2. RECEIVED BY:
 Signature: *David Krizek*
 Printed Name: David Krizek
 Firm: TURNER LABORATORIES, INC.
 Date/Time: 7/28/12 13:12

3. RELINQUISHED BY:
 Signature: *David Krizek*
 Printed Name: David Krizek
 Firm: TURNER LABORATORIES, INC.
 Date/Time: 7/28/12 13:12

REPORT REQUIREMENTS:
 I. Routine Report
 II. Report (includes DUP, MS, MSD, as required, may be charged as samples)
 III. Date Validation Report (includes All Raw Data)
 Add 10% to Invoice

INVOICE INFORMATION:
 Account Y N
 P.O. #
 Bill to:

SAMPLE RECEIPT:
 Total Containers 34
 Temperature 9.7
 Wet Ice Blue Ice

4. RECEIVED BY:
 Signature: *David Krizek*
 Printed Name: David Krizek
 Firm: TURNER LABORATORIES, INC.
 Date/Time: 7/28/12 13:12

SPECIAL INSTRUCTIONS/COMMENTS:
 Compliance Analysis: Yes No
 ADEQ Forms: Yes No
 Mail ADEQ Forms: Yes No

Container Intact
 COC/Labels Agree
 Received Within Hold Time

Preservation Confirmation
 Appropriate Head Space
 Received Within Hold Time

Stormwater Monitoring – Existing Conditions – Lab Sheet

July 1, 2021

Stormwater Monitoring – Existing Conditions

Frequency: As needed when sampled and when sufficient storm flows occur in washes (Field Parameters)

Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
General Measurements						
Temperature – field	° C (Celsius)	Oakton PC 450 Meter/Oakton pH Con 10 Meter	NA	NA		
pH – field	S.U.	Oakton PC 450 Meter/Oakton pH Con 10 Meter	NA	NA		
Conductivity – field	µS/cm	Oakton PC 450 Meter/Oakton pH Con 10 Meter	NA	NA		

Stormwater Monitoring – Existing Conditions – Lab Sheet

July 1, 2021

Stormwater Monitoring – Existing Conditions (continued)

Frequency: As needed when sampled and when sufficient storm flows occur in washes (Laboratory Parameters)						
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
General Measurements, General Chemistry						
Temperature – lab	° C	SM 4500 H+B	NA	NA		
pH – lab	S.U.	SM 4500 H+B	NA	NA		
Conductivity – lab	µS/cm	SW-846 9050A	2.0	NA		
Total dissolved solids	mg/L	SM 2540 C	20	NA		
Total suspended solids	mg/L	SM 2540 D	10	NA		
Turbidity	NTU	EPA 180.1	1.0	NA		
Hardness ¹	mg/L	SM 2340B/ calculation	13.0	NA		
Cation/Anion Balance	%	calculation	NA	NA		
Total alkalinity	mg/L	SM 2320 B	4.0	NA		
Bicarbonate	mg/L	SM 2320 B	4.0	NA		
Carbonate	mg/L	SM 2320 B	4.0	NA		
Hydroxide	mg/L	SM 2320 B	4.0	NA		
Sulfate	mg/L	EPA 300.0	0.50	NA		
Chloride	mg/L	EPA 300.0	0.5	NA		
Fluoride	mg/L	EPA 300.0	0.50	NA		
Nitrate (as nitrogen [N])	mg/L	EPA 300.0	0.10	NA		
Nitrite (as N)	mg/L	EPA 300.0	0.10	NA		
Nitrate + Nitrite (as N)	mg/L	EPA 300.0/ calculation	0.10	NA		
Total Nitrogen	mg/L	Total Nitrogen/ calculation	NA	NA		
Total Kjeldahl Nitrogen	mg/L	EPA 351.2	0.50	NA		
Calcium ¹	mg/L	EPA 200.7	2.0	NA		

Stormwater Monitoring – Existing Conditions – Lab Sheet

July 1, 2021

Stormwater Monitoring – Existing Conditions (continued)						
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
General Measurements, General Chemistry (continued)						
Magnesium ¹	mg/L	EPA 200.7	2.0	NA		
Sodium ¹	mg/L	EPA 200.7	0.5	NA		
Potassium ¹	mg/L	EPA 200.7	0.5	NA		
Ammonia (as N)	mg/L	SM 4500	0.5	NA		
Orthophosphate (as P)	mg/L	EPA 300.0	0.1	NA		
Silicon Dioxide ¹	mg/L	EPA 200.7	0.214	NA		
Frequency: As needed when sampled and when sufficient storm flows occur in washes (Laboratory Parameters)						
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
Dissolved Metals						
Aluminum	mg/L	EPA 200.7	0.1	NA		
Antimony	mg/L	EPA 200.8	0.001	NA		
Arsenic	mg/L	EPA 200.8	0.0005	NA		
Barium	mg/l	EPA 200.7	0.01	NA		
Beryllium	mg/L	EPA 200.7	0.001	NA		
Boron	mg/L	EPA 200.7	0.05	NA		
Cadmium	mg/L	EPA 200.7	0.001	NA		
Chromium – total ²	mg/L	EPA 200.7	0.01	NA		
Cobalt	mg/l	EPA 200.7	0.01	NA		
Copper	mg/L	EPA 200.7	0.01	NA		
Lead	mg/L	EPA 200.8	0.0005	NA		

Stormwater Monitoring – Existing Conditions – Lab Sheet

July 1, 2021

Stormwater Monitoring – Existing Conditions (continued)						
Frequency: As needed when sampled and when sufficient storm flows occur in washes (Laboratory Parameters)						
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
Dissolved Metals (continued)						
Manganese	mg/l	EPA 200.7	0.01	NA		
Mercury	mg/L	EPA 245.1	0.0002	NA		
Molybdenum	mg/l	EPA 200.7	0.01	NA		
Nickel	mg/L	EPA 200.7	0.01	NA		
Selenium	mg/L	EPA 200.8	0.0005	NA		
Silver	mg/L	EPA 200.8	0.0001	NA		
Thallium	mg/L	EPA 200.8	0.0001	NA		
Zinc	mg/L	EPA 200.8	0.013	NA		
Frequency: As needed when sampled and when sufficient storm flows occur in washes (Laboratory Parameters)						
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds		
Total Recoverable Metals						
Aluminum	mg/L	EPA 200.7	0.1	NA		
Antimony	mg/L	EPA 200.8	0.001	NA		
Arsenic	mg/L	EPA 200.8	0.0005	NA		
Barium	mg/l	EPA 200.7	0.01	NA		
Beryllium	mg/L	EPA 200.7	0.001	NA		
Boron	mg/L	EPA 200.7	0.05	NA		
Cadmium	mg/L	EPA 200.7	0.001	NA		
Chromium - total ²	mg/L	EPA 200.7	0.01	NA		

Stormwater Monitoring – Existing Conditions – Lab Sheet

July 1, 2021

Stormwater Monitoring – Existing Conditions (continued)					
Frequency: As needed when sampled whenever sufficient storm flows occur in washes (Laboratory Parameters)					
Parameter	Units	Analytical Method	Acceptable Detection Limits (at or below the listed value)	Permit Limits / Thresholds	
Total Recoverable Metals (continued)					
Cobalt	mg/l	EPA 200.7	0.01	NA	
Copper	mg/L	EPA 200.7	0.01	NA	
Iron	mg/L	EPA 200.7	0.1	NA	
Lead	mg/L	EPA 200.8	0.0005	NA	
Manganese	mg/L	EPA 200.7	0.01	NA	
Mercury	mg/L	EPA 245.1	0.0002	NA	
Molybdenum	mg/l	EPA 200.7	0.01	NA	
Nickel	mg/L	EPA 200.7	0.01	NA	
Selenium	mg/L	EPA 200.8	0.0005	NA	
Silver	mg/L	EPA 200.8	0.0001	NA	
Thallium	mg/L	EPA 200.8	0.0001	NA	
Uranium	mg/L	EPA 200.8	0.0001	NA	
Zinc	mg/L	EPA 200.8	0.013	NA	

Units: S.U. = standard units

µS/cm = micro Siemens per centimeter

mg/L = milligrams per liter

µg/L = micrograms per liter

NA = not applicable

NNS = no numeric standard

¹: Parameter to be analyzed as both dissolved and total.

²: Stormwater samples will be analyzed for total Chromium but the results will be compared to Chromium III (since there is currently no lab method for Cr III). Numeric standard listed in Table B-1 is for Chromium III.